

**We claim:**

1. A filtration system comprising a plurality of modular filtration units, wherein each of said modular filtration units further comprises:

a housing;

a means for interlocking one of said modular filtration units to another modular filtration unit; and

a filtration element.

2. A filtration system as in claim 1 wherein said plurality of modular filtration units interlock together to form a single cell filtration system.

3. A filtration system as in claim 1 wherein said means for interlocking modular filtration units further comprises:

flanges on each of said modular filtration units;

a means for sealing a joint; and

a means for joining.

4. A filtration system as in claim 3 wherein said means for joining further comprises one or more bolts.

5. A filtration system as in claim 4 wherein said means for sealing is a gasket.

6. A filtration system as in claim 3 wherein said means for joining further comprises mating sliding-slotted flanges.

7. A filtration system as in claim 6 wherein said means for sealing is caulking.

8. A filtration system as in claim 1 wherein said housing is constructed of fibreglass reinforced plastic.

9. A filtration system as in claim 3 wherein said housing is constructed of fibreglass reinforced plastic.
10. A filtration system as in claim 1 wherein said filtration element for at least one of said modular filtration units further comprises a biofilter.
11. A filtration system as in claim 1 wherein said filtration element for at least one of said modular filtration units further comprises a carbon dioxide stripper.
12. A filtration system as in claim 1 wherein said filtration element for at least one of said modular filtration units further comprises a foam fractionator.
13. A filtration system as in claim 1 wherein said filtration element for at least one of said modular filtration units further comprises a low head oxygenator.
14. A filtration system as in claim 1 wherein said filtration element for at least one of said modular filtration units further comprises a UV light sterilization filter.
15. A filtration system as in claim 1 wherein said filtration element for at least one of said modular filtration units further comprises a mechanical solids filter.
16. A filtration system as in claim 1 wherein said filtration element for at least one of said modular filtration units further comprises a fine solids polishing filter.
17. A filtration system as in claim 1 wherein at least one of said modular filtration units further comprises a second filtration element, wherein said first filtration element further comprises a carbon dioxide stripper and said second filtration element further comprises a foam fractionator.
18. A filtration system as in claim 1 wherein at least one of said modular filtration unit further comprises a second filtration element, wherein said first filtration element further comprises a UV light sterilization filter and said second filtration element further comprises a low head oxygenator.

19. A filtration system as in claim 10 wherein said biofilter further comprises a vertical central baffle wall, an air manifold, and biofiltration media.
20. A filtration system as in claim 19 wherein said biofilter further comprises an inlet, and wherein:  
said central baffle wall further comprises a 45 degree extension on the bottom of said baffle wall directed towards said inlet and a 45 degree extension on the top of said baffle wall directed away from said inlet ;  
said biofiltration media has a surface area no less than 350m<sup>2</sup>/m<sup>3</sup>; and  
said air manifold is located near said inlet.
21. A filtration system as in claim 20 wherein said biofiltration media is constructed of extruded polyethylene.
22. A filtration system as in claim 20 wherein said biofiltration media is constructed of extruded polystyrene.
23. A filtration system as in claim 20 wherein said biofilter further comprises an outlet and a retaining screen.
24. A filtration system comprising two or more modular filtration units, wherein each of said modular filtration units comprises a housing and a filtration element.
25. A filtration system as in claim 24 wherein said housing further comprises a means for interlocking said housing to the housing of another modular filtration unit.
26. A filtration system as in claim 25 wherein said modular filtration units interlock to form a single volume body.
27. A filtration system as in claim 26 wherein said means for interlocking modular filtration units further comprises:

flanges on each of said modular filtration units;  
a sealant; and  
a means for joining.

28. A filtration system as in claim 27 wherein said means for joining further comprises one or more bolts, wherein said sealant further comprises a gasket, and wherein said housing is constructed of fibreglass reinforced plastic.

29. A filtration system as in claim 27 wherein said filtration element for at least one of said modular filtration units further comprises a biofilter.

30. A filtration system as in claim 29 wherein said biofilter further comprises an inlet, an outlet, a vertical central baffle wall, an air manifold, a retaining screen, and biofiltration media.

31. A filtration system as in claim 30 wherein:

said central baffle wall further comprises a 45 degree extension on the bottom of said baffle wall directed towards said inlet and a 45 degree extension on the top of said baffle wall directed away from said inlet ;

said air manifold is located adjacent to said inlet;

said biofiltration media is constructed of extruded polymer; and

said retaining screen covers said outlet.

32. A filtration system as in claim 31 wherein said biofiltration media has a surface area no less than 350m<sup>2</sup>/m<sup>3</sup>.

33. A filtration system comprising a biofilter, wherein said biofilter further comprises an inlet, an outlet, a vertical central baffle wall, an air manifold, a retaining screen, and biofiltration media.

34. A filtration system as in claim 33 wherein:

said central baffle wall further comprises a 45 degree extension on the bottom of said baffle wall directed towards said inlet and a 45 degree extension on the top of said baffle wall directed away from said inlet ;

said biofiltration media has a surface area no less than 350m<sup>2</sup>/m<sup>3</sup>;

said air manifold is located near said inlet; and

said retaining screen covers said outlet.

35. A filtration system as in claim 34 wherein said biofiltration media is constructed of extruded polymer.

36. A filtration system as in claim 35 wherein said biofiltration media is constructed of extruded polystyrene.

37. A filtration system as in claim 35 wherein said biofiltration media is constructed of extruded polyethylene.

38. A filtration system as in claim 35 further comprising a plurality of modular filtration units, wherein each of said modular filtration units further comprises:

a housing;

a means for interlocking one of said modular filtration units to another modular filtration unit; and

a filtration element; and

wherein said filtration element for at least one of said modular filtration units is said biofilter.